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ABSTRACT

The core features of the preindustrial model of school-to-work transition are needed now. An environment must be recreated in which young people see the vital connections among education, training, and work that were once so clear. The emerging consensus model has these features: combined formal schooling and structured on-the-job training leading to a qualification; an intellectually-demanding curriculum that requires students to apply knowledge to real-world problems; a curriculum and set of work experiences focused enough to qualify students for entry-level work, but broad enough to provide skills for mobility; and job experiences. A three-tier system of education and skills standards has been proposed. This system would lead to a Certificate of Initial Mastery with which a student could go on to college, enter the work force, or enroll in a program of professional and technical education and training leading to a Tier II skills certificate. The system should provide for funding and development of dropout prevention and dropout recovery programs. Out-of-school young people should be working toward the same qualifications as young people in school. They would need a much wider range of support, the prospect of public placements, and a point of entry into the school-to-work transition system. Employers and unions must be involved in local organizations in career centers around which the school-to-work transition system would be organized at the local level. (YLB)

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# *A School-to-Work Transition System for the United States*

*By Marc Tucker*

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## WORKFORCE SKILLS PROGRAM

The National Center's Workforce Skills Program is working to build a human resources investment system in the United States by helping to implement the recommendations in *America's Choice: high skills or low wages!* at the national, state and local levels. The landmark 1990 report called for the United States to create a single comprehensive system for general, professional and technical education that meets the needs of everyone from high school students to dislocated workers, from the hard-core unemployed to working adults who want to improve their skills. Creating such a system means changing features of our education and training systems that have been in place for much of this century. To carry out this vision, the Workforce Skills Program is working closely with leaders in the executive branch and Congress, governors and state legislators, educators and business executives — both to develop public policy and to provide technical assistance to implement those policies.

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WORKFORCE SKILLS PROGRAM

# A School-to-Work Transition System for the United States

By Marc Tucker

April 1994

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## SETTING THE STAGE

### School-to-work transition — old style

Through much of human history, education, skill development and work were one and the same, and all revolved around one institution: the family. The family was the basic unit of economic production and much, if not all, of what the family produced, it used. As the young grew up, they first observed their parents at work and then, in a measured pace, took their places alongside their parents as productive members of society, developing the attitudes, values, knowledge and skills they would need to be fully productive along the way. The line between education and training was hard to find. Both were interwoven with work. Because they were valued from an early age as producers, young people valued themselves. Because the requirements of work were clear, the tests of what it meant to be an adult were clear, and when young people met those tests, their accomplishments were celebrated by their parents and the community at large. The transition from youth to adulthood was not necessarily painless — it always included, for example, the potential for the worst sort of child exploitation — but, for most youngsters, it was predictable, relatively smooth and quite effective.

As organized societies developed, the common folk were taxed to provide for the leaders, who no longer had to grow their own food. Around these leaders, a class of warriors, administrators and artisans developed. The top strata of this class developed the rudiments of an educational program, delivered by tutors. The artisans gradually coalesced into guilds, which provided for skills development in the young by creating a system of apprenticeship in which young people were apprenticed to master artisans, sometimes living with them away from their families while they acquired the skills of the trade. Thus began a long process through which education and training were to develop their own separate identities, each with their own institutions and their own professional providers, increasingly separate from each other and the family unit.

### The Industrial Revolution and the mass-production system

The Industrial Revolution greatly accelerated these developments. As families moved from the fields to the growing metropolitan centers, sometimes to avoid starvation and sometimes to seek a better life, the family progressively ceased to be an effective unit for economic production. The home weaver was replaced by the woolen and cotton mill, the blacksmith by the gun factory. Work was no longer done at home.

But the crucial turning point came with the introduction of mass production. It was an ingenious social invention. In the space of two decades at the beginning of the 20th century, a vast new middle class was created that lived in many ways better than the upper class before it. The new system was built around highly complex and very expensive machines capable of turning out great quantities of goods of all kinds at an astonishingly low price, replacing a system in which individual artisans turned out custom-made goods one by one at very high prices.

To staff this new system, what was needed was a small group of well-educated and trained managers and professionals, a much reduced body of craftspeople, and a very large group of people who needed only a basic level of literacy and virtually no vocational skills to tend the machines. Within 10 years after the end of World War II, this system had evolved in the United States to the point that virtually all large corporations had made a sharp distinction between the salaried workers who occupied the professional, managerial and senior technical positions, and the hourly wage workers who occupied the positions on the front line.

The United States quickly developed a greatly expanded education and training system to meet the needs of the mass-production system, which found its expression in the organization of the American high school: an academic track for those who were to go on to four-year colleges and occupy the professional, managerial and senior technical ranks; the vocational track for those who were to go on to the crafts and trades; and the general track (half of the total) who were to go on to staff the front-line workforce immediately following high school. There was a widespread consensus, mirrored by the realities of the workplace, that those in the academic track needed to be educated but not to be trained (until they got to the university), those in the vocational track needed to be trained but not educated, and those in the general track needed only a seventh- or eighth-grade level of basic literacy and no training for vocational skills at all.

The whole system was organized around this unspoken consensus. The schools were there to sort the students into these three groups by the beginning of high school and to provide a program appropriate to the needs of each within the high school. There was consensus on another important point, too — that employers could expect the products of this system, at every level, to be job ready. Employers did not expect, nor were they expected, to play any role in this skill development system except for the role of customer. This was not true of the unions. In a holdover from the guild system, some unions, heavily concentrated in the building trades, operated an apprenticeship system in which aspiring tradespeople combined classwork with on-the-job training, working toward a certificate that would fully qualify them in their chosen trade. But this apprenticeship system enrolled people in their mid- to late twenties and had no connection to the schools.

There was a place in this system for everyone but African-Americans and Native-Americans. All of the other immigrant groups had started at the bottom and fought their way into the ranks. But for African-Americans and Native-Americans, the path upward was effectively blocked.

## The demands of the high performance workplace

In the years after World War II, the international economy underwent a profound change. The mass-production system on which both our economic system and our education and training systems were based was progressively adopted by less developed countries that had increasing access to the capital and technology to which we had access, and that could offer much lower labor costs. No less important, these countries were able to produce widespread basic

literacy on a par with — and in some cases exceeding — the literacy levels of our front-line workforce.

Employers in the advanced industrial countries were forced to compete with these low-cost producers or go out of business. If they competed using the mass-production model, their only choices were to lower wages, or export production or a combination of both. But there was an alternative. People the world over would pay a premium for high-quality goods and services customized to consumer requirements and available immediately. The mass-production model, however, was not well suited to these requirements. Meeting them required a radical reorganization of the workplace.

In the high performance workplace, the workers on the front line take on many of the responsibilities formerly given only to professionals and managers. They work in teams, each member of which is expected to have the skills required to do the work of all the other team members. Each is expected not to work to tight specifications set by the front office without thinking about the consequences, but rather to solve problems as they arise and contribute to improvements in the design of both the product or service and the processes used to produce them, all with a minimum of supervision. They are, in short, expected to think and act like professionals and like professionals, to learn whatever they have to learn to get the ever-changing job done — and done to a high standard.

In the old mass-production model, the division between the front line and the front office, between wage earner and salaried staff, between professional and worker, was hermetically sealed. One needed an education and the other needed only basic literacy. The demands of the new economy knocked these conceptions into a cocked hat, and with them went the entire conceptual underpinning of the nation's education and training system. The new economy clearly required a very high level of literacy and technical capacity of virtually everyone, not just an elite. But something else had happened, too. Suddenly, and surprisingly, some of the basic features of the *pre-industrial* system for skill development looked very attractive indeed.

## Where we are now

To see why this is true, we need to examine the legacy of a century of education organized to meet the needs of the mass-production system.

In a quite remarkable way, the United States had reproduced a key feature of the feudal system of centuries ago, though our rhetoric would have had us believe otherwise. Our economy demanded three classes of workers: the professionals and managers, the artisans and tradespeople, and a yeomanry to occupy the front lines. And we had a reasonably efficient system for sorting our people into those streams and providing all with the skills they would need to take their place in the grand scheme.

But we had pulled the fabric of that ancient society apart, and all the ligaments that had bound it together were gone with nothing put in their place. This was painfully true for our young people, all but those headed for leadership positions in the society.

## THE NEW MANDARINS

For students from well-placed families, the system worked very well indeed. They were given demanding work, and the best teachers, and they were expected to perform well. Motivated by the assurance that hard work in school would pay off in the virtual certainty of occupying the most rewarding positions society had to offer, they worked hard in school. Their course work was like that of the mandarins in ancient China — far removed from anything remotely vocational, requiring little in the way of application of their academic knowledge to real-world problems. But the aridity of the curriculum was of no consequence for these students, because their patience would be very tangibly rewarded if they put up with it. All along the way, their well-placed parents would make sure they went to the "right" schools and selective colleges and would have all the informal connections they needed to get the good jobs when the time came. When these students arrived in the workplace from college or graduate school, their employers would complain with increasing frequency that they grew quickly confused when the real problems with which they were confronted did not yield to their sharply honed but narrow technical skills, and that they had little practical sense of the world, that they were arrogant and expected to rise up the ranks quickly almost as a matter of right. But all of this mattered little to the favored few, because they reaped the rewards of their positions anyway.

If we compare the situation of these students to that of young people in the pre-industrial society, we find that, though they can no longer understand what work is by watching their parents do it, and can no longer acquire the skills they need to do it by apprenticing themselves to their parents as they develop, their parents still play a key role in making the connections to employers, and therefore to work, that families have played for thousands of years. As adolescents, they value themselves not because they are producing anything of societal value — they know they are not — but because all the adults in their lives value them highly as the next generation of mandarins.

But the students just described are a minority. The reality for everyone else is very different.

## AND EVERYONE ELSE

For the vast majority, those who do not plan to go to a selective college, the high school diploma is the ticket to college or a job. But the high school diploma requires achieving only a seventh- or eighth-grade level of literacy, showing up most of the time and not causing too much trouble. In fact, because taking a tough course and flunking it can result in no high school diploma, it makes more sense to take undemanding, vacuous courses and to work only hard enough to get a passing grade. Some of these students are in the lower reaches of the academic track, some are in the vocational track and the rest, fully half of all high school students, are in the general track.

In years past, vocational education was in high demand. But enrollments have fallen off sharply in recent years, partly because new state requirements designed to strengthen academic performance have limited the number of vocational courses students can take and partly because it is increasingly the case that status in society at large now comes only with the baccalaureate degree. In response, secondary vocational

educators have now sensibly formed a partnership with post-secondary vocational schools — mostly community colleges — to create a pathway to a college degree — the associate degree — through the mechanism of the tech-prep program for those who want to pursue a vocational education and still get the cachet that comes with a college degree. But the fact remains that vocational education enrollments continue to decline around the country.

The greatest disaster, however, has befallen the people who have served as the backbone of the front line in the mass-production system, the students in the general track. The statistics tell the story. The great majority of these students leave high school (whether or not they graduate) with only a seventh- or eighth-grade level of literacy and virtually no vocational skills. When they do leave, they get unskilled, dead-end jobs for a while. Many then go on unemployment, and then back to the unskilled, dead-end jobs in an endless cycle, finally getting a "real" job with some career prospects only in their mid-20s, having by that time more seasoning but little more in the way of technical skills than they had when they left high school.

For the vast mass of these students, there is little or no connection between what they want for themselves as adults and what school has to offer them, as they see it. Effort in school does not pay off in terms of better job or college prospects. Few of those who wind up in the non-selective colleges have what it takes to get a degree, so a large majority of students drop out along the way.

As the new economy becomes more pervasive, the difference in expected lifetime income between those who just finish high school and those who get a baccalaureate degree grows steadily.

Now, let's go back and compare the situation of this "neglected majority" — most of our students — with the youngsters who grew up in the pre-industrial economy. They no longer know what adults do at work because they do not see them doing it. They have no opportunity to acquire the skills needed to do that work, because they no longer work alongside their parents or anyone else doing real adult work. (We must remember that most work done by adolescents is done in the dead-end jobs mentioned before, and most of that work is done in places that mostly employ teenagers working under the supervision of other teenagers in workplaces that bear little, if any, resemblance to the workplaces in which people have real careers.) They have no opportunity to test themselves against the demands of real productive work that is of value to society at large and to take pride in meeting the demands of such work. They think of themselves as nobodies because they have no opportunity to demonstrate that they are somebodies in the scheme of adult society. And they have no opportunity to acquire the skills that the high performance workplace will require and all the tangible and intangible rewards that go with having those skills. This is in stark contrast to pre-industrial teenagers who knew that their labor was crucial to the success of the family unit economy and could take justifiable pride in their vital contribution. As teenagers, they are facing a dead end, and they know it.

Those facing the most appalling challenge are clearly the youngsters living in deep poverty in central cities and impoverished rural areas. Especially for those in the cities, and most especially for African-American

youngsters, the pre-industrial model stands as a mockery of everything they know. All around them, on television and elsewhere, are vivid images of good jobs they know they will never get. The best jobs they can hope for are the dead-end jobs at the bottom of the ladder that offer no way out, and for each one who gets one of those jobs, many applicants will be turned away. Then there are the illegal jobs that generally lead to an early death or jail. The families of these youngsters can provide neither the skills they need nor the connections to the jobs they want. Their teachers expect little of them and, as a consequence, rarely offer them the opportunity for the demanding academic work on which a way out depends. Everything in their experience teaches them that no one expects them to amount to anything. They have no reason to invest themselves in the values and institutions of a society that shows no inclination to invest anything in them. Their experiences could not be further from the experience of a youngster in the pre-industrial family unit.

### THE CHALLENGE

All of this frames the challenge. We cannot turn the clock back, nor would we want to. But the core features of the pre-industrial model described earlier are needed now more than ever. We need to recreate an environment in which our young people see the vital connections among education, training and work that were once so clear. That means rebuilding a system in which all young people are motivated to work hard in school because they know that hard work in school will pay off by enabling them to learn what they will need as adults, in and out of the workplace. And it means creating an environment for all of our young people in which each of them can be somebody, proving to themselves and others that they have successfully met the challenges that confer upon them the status of adults who can hold their heads high. And, finally, it means building a learning environment that enables everyone to weave back and forth between acquiring the deep knowledge and skills they need and applying them to real-world problems, because we now know that that interplay is vital as we make meaning out of information. It is only when we constantly test our information and process skills against the demands of the real world that we truly know anything, something the ancients understood well and we have long forgotten. But the question is how to do all that in the context of today's environment, so different in every way from that not only of the pre-industrial society but also of the mass-production economy.

## SCHOOL-TO-WORK TRANSITION: THE EMERGING CONSENSUS MODEL

None of this is news to a small group of thoughtful analysts who, on the one hand, have seen the new economy coming and, on the other hand, have witnessed with growing concern the anguish of the "forgotten half"— those students who have been left behind by this economy. Drawing mainly on the European experience, they have framed models and served as advocates for a new system of school-to-work transition for the majority of our youth, lasting for two to four years, that would begin around age 16, the primary features of which are as follows:

- combined formal schooling and structured

on-the-job training leading to a qualification for which nationally recognized skills standards have been set by the employers in the industry or industries for which the student is preparing;

- a curriculum that is intellectually demanding but that also requires the student to apply what he or she knows to the kinds of complex, real-world problems that will be encountered in the high performance workplace;

- a curriculum and set of work experiences focused enough to qualify the successful student for entry-level work in a rewarding career, but also broad enough to provide the student with the skills required for real mobility in a rapidly changing job market;

- job experiences that will enable the student to sample a broad range of careers and occupations and, under the guidance of a skilled mentor, acquire both the technical skills and the personal values and habits needed to be successful; and

- classwork that includes both secondary and post-secondary courses that will give the student the experience and the credit needed to continue pursuing a college education as long as he or she wishes.

Four years ago, this agenda, taken as a whole, existed only in the minds of a handful of analysts and in a few communities with visionary leaders. Two years ago, it had gained enough currency to become a central plank in the platform of the successful candidate for the presidency of the United States. It has now become enshrined in federal legislation. Though it is not without its critics, it has strong support from mainstream educators, the vocational education community, youth advocates, general government and the business community.

But the broad formulation of this agenda, which has helped propel it to legislative success, may prove its undoing when it comes to implementation. This is because the legislation was written to provide great flexibility to the people at the state and local levels who will be responsible for implementing it. The natural tendency in such a situation is to graft the new onto the old, avoiding controversy wherever possible. If that happens, the opportunity to create a new system that truly meets the needs described above will have been lost. The system needed builds on the consensus model described above, but goes further.

## SCHOOL-TO-WORK TRANSITION: CONFIGURING THE SYSTEM

### A three-tier system of standards

Imagine that the United States built a system of education and skills standards with three tiers.

In the *third tier* would be standards for individual front-line jobs, like steam fitter, telephone repairperson or receptionist. These standards might also include standards that individual firms set for their own employees (this is how they do it at Motorola). Many such standards exist now, set by firms, licensing authorities, unions and associations. In the scheme proposed in this paper, government would have no more to

do with setting such standards than it does now and would make no attempt to create a uniform system of such standards.

In the *second tier* would be standards for broad clusters of front-line jobs, often encompassing multiple industries. What each standard would have in common would be a common skill set. Fields for which such standards could be set might include precision manufacturing, health sciences and administrative operations. The new National Skills Standards Board would be responsible for establishing the categories in which these standards would be set — no more perhaps than 40 or so, covering almost the whole range of front-line jobs in the economy that typically require less than a baccalaureate degree at the entry level. Every effort would be made to establish these standards to meet the requirements of high performance work organizations in the relevant industries. People who met these standards would receive certificates from the state in which they were examined, endorsed by the National Skills Standards Board.

The *first tier* of standards would be for general education, the standards that everyone in the society would be expected to meet, irrespective of the particular kinds of careers they intend to pursue. They would be benchmarked to the performance of 16-year-old students in those countries in which performance was highest in each of the core academic subjects — language, mathematics and science — and would also incorporate the generic skills demanded in common by all high performance work. Content standards for these areas either have been developed or are now under development by various national bodies. Examinations and performance standards are being developed by the New Standards consortium, several states and others. These standards could be endorsed by the new National Educational Standards and Improvement Council. People who meet this standard in all four areas would be awarded a Certificate of Initial Mastery by the state in which they pass the necessary examinations.

The examination systems for both Tier I and Tier II certificates would rely heavily on portfolio assessment systems that put a premium not on narrowly defined observable behaviors, but on a conceptual grasp of the material studied and the capacity to apply that knowledge to the kinds of complex problems encountered in real life (with respect to the Certificate of Initial Mastery) and in the industries concerned (with respect to the skills certificates). Acquiring these certificates would depend not on taking any particular prescribed set of courses, but only on passing the assessments and thereby demonstrating the capacity to perform at the level set by the standards. In fact, there would be many possible instructional settings and paths through which an individual might get to the standard.

Employers that wished to use the skills standards certificates as a required qualification for hiring or promotion would have to show that they actually used high performance forms of work organization, because the standards would be validated against the requirements of high performance work in the industries covered. They would thus be in compliance with existing civil rights law, which requires that tests or examinations used for hiring and promotion test for skills that are actually required by the work to be done.

Neither the Certificate of Initial Mastery nor the skills certificates would be tied to any

particular age or institution. Any certificate could be acquired at any time, by passing the examinations. Public school students, youngsters in the Job Corps satisfying their literacy requirement and 40-year-olds enrolled in adult basic literacy programs could all be seeking a Certificate of Initial Mastery. Dislocated workers, displaced homemakers and young people in school-to-work transition programs could all be seeking skills standards certificates endorsed by the National Skills Standards Board, and they might have studied for the certificates in many different kinds of institutions.

## How the Certificate of Initial Mastery will work

As mentioned earlier, students should be able to get the Certificate of Initial Mastery whenever they are ready, that is, when they have assembled a portfolio that meets the standards. A few might meet them at age 14. Most would be expected to meet them around 16. Some might not meet them until 20. But the schools would be held accountable for making sure that all students meet these standards before they are too old to legally stay in high school.

The standards for the Certificate of Initial Mastery are the same for all students. Tracking American-style would be gone — a century of practice in which different groups of students have been held to different standards, with much expected of some and very little of others, from the time they first enter school until they leave.

What then would happen when a student reaches the standard and receives the Certificate of Initial Mastery?

Some will go on to full-time, college-level work. There would be several ways in which they could do this. Because more than half our colleges now require no more than a high school diploma for admission, it is likely that they would also accept the Certificate of Initial Mastery for admission, since the standards met by the student would be substantially higher. But some students, even if they could go right to college after receiving the Certificate, will not want to do so, perhaps because they are involved in the sports program or do not want to leave their friends. For these students, the high schools could offer an American version of the International Baccalaureate, essentially providing the equivalent of the first two years of college right in high school and then allowing students to enter the upper division of college when they leave. Another version of this option already available would be for students to enroll in Advanced Placement courses, gathering college credit in selected courses until they are ready to go to college. Still a third option for the student who wants to compete for admission to a selective college is simply to take another year or two of academically demanding courses, some of which might be Advanced Placement courses, putting together a record sufficiently attractive to be fully competitive for the college of choice.

Some will opt to go right into the workforce or into a community service program, choosing to defer further education for a while. Given the standard these students will have met, they could hardly be considered dropouts in the current meaning of that term, being more qualified than many, perhaps most, of those who now earn a high school diploma. Even so, some people will be horrified at the prospect of allowing youngsters to leave school at 16. The reality,

though, is that many bright and able youngsters are simply weary of school at this point and anxious to get on with their lives. Under this plan, they would be welcome to do so, having all the qualifications they need to go on to more education just as soon as they are ready, and, through the school-to-work transition system, a ready-made path for doing so.

Finally, and most important for the topic of this paper, they could enroll in a program of professional and technical education and training leading to a Tier II skills certificate endorsed by the National Skills Standards Board.

## School-to-work transition programs leading to National Skills Standards Certificates

In general, with one important exception, students would be expected to receive the Certificate of Initial Mastery before beginning a program designed to prepare them for exams leading to a skills certificate in their chosen career area.

Typically, the student would begin the school-to-work transition program in high school after receiving the Certificate of Initial Mastery at about the beginning of the 10th grade. The program would include course work in high school and at the local community college (and possibly even a four-year college) combined with structured on-the-job training work sites representing a fair sampling of the occupations, industries and types of employers in the student's selected career area. Students might begin in high school and go on to community college, or interweave high school courses and college courses into one program. The typical program might take two to three years, in some cases stretching to four years. Here again, the student would get the certificate on a showing of competence measured against the standards, rather than simply by completing a sequence of prescribed courses.

The assessment of a student's competence against the skills standards would be much like the assessments for the Certificate of Initial Mastery, based in part on a standard examination, but mostly on the grades received for the work contained in the student's portfolios, a sampling of the student's best work over the course of the whole program. From this record, a prospective employer would have a very good idea of what kind of experiences the student had had, the kind of work the student could do in a wide variety of situations and how that student measured up against the industry standards.

Overall, the standards would be designed to assure that the student completed the program with skills that employers want and will pay for (that is, the successful student would be employable in a good job leading to a good career). The standards also would ensure that the education and training received would be broad enough so that the student could both continue his or her education at the college level as well as move easily among a wide variety of jobs and careers with only a modest amount of additional education and training, having been prepared to think and learn easily.

When the student successfully completes the program, he or she would receive a high school diploma, a skills certificate endorsed by the National Skills Standards Board and by the industry groups that developed the

standard, college credit and, possibly, a college degree, typically an associate degree.

## Students who do not get their Certificate of Initial Mastery by age 16

For many students, particularly those from impoverished backgrounds, it will be very hard to complete the Certificate of Initial Mastery by age 16. For many of these students, combining the mastery of academic skills with the application of those skills in the workplace may also be the very thing they need to succeed in school. So, if the student has not received the Certificate of Initial Mastery by 16, it should be possible for that student to begin a program of the kind described above anyway, with the proviso that the student not be eligible to receive the skills certificate until the Certificate of Initial Mastery has first been earned.

But some will drop out of school anyway. And there will be still other young people, perhaps just beyond the legal age to attend high school, who also need these programs and must have access to them.

In the report of the Commission on the Skills of the American Workforce, *America's Choice: high skills or low wages!*, two programs were described: one a dropout prevention program, the other a dropout recovery program. Both are highly successful. The first is the Work-Scholarship Connection Program originally sponsored by Wegmans' Food Markets, based in Rochester, NY. The program now enrolls 300 students from the Rochester inner city, and the community has just set a target of 6,000 slots, using a design that combines the resources of the business community, the school district, the county Department of Social Services and the United Way. The second program is the dropout recovery program of the Sweetwater High School District in San Diego County, CA. Within three years of its inception, this program had attracted more than 2,000 school dropouts to a special open-entry, open-exit program, operated by the school district, that enables the students to combine full-time jobs with high school level academic studies and earn a high school diploma. Very high proportions of these students were completing the program and earning their diplomas, and more than half were going on to enroll in college programs. The Sweetwater program achieved these results at a cost well below the average per pupil expenditure for regular, full-time, high school students.

These programs and others like them prove beyond doubt that it is possible both to prevent and to recover dropouts in very high numbers and at costs that are well within the current capacity of our overstrained funding systems. Permitting students who are in school, and who have reached the age of 16, to participate in the kind of school-to-work transition systems described here will only serve to increase the capacity of our schools to retain students who would otherwise drop out and to bring them up to the standards we have in mind.

What is needed are state policies that (1) provide funding incentives to school districts to develop dropout recovery programs like Sweetwater's, (2) provide regulatory relief and funding incentives to local communities that build integrated community programs like Rochester's to prevent students from dropping out in the first place, (3) insist in the guidelines they develop for statewide school-to-work transition systems that

students who do not have their Certificate of Initial Mastery by age 16 be fully included in the school-to-work transition programs, and insist that students have the support they need to acquire the Certificate of Initial Mastery while in those programs and (4) most important, create incentives and supports for the professional staff in all schools to bring as many students as possible to the Certificate of Initial Mastery standard by age 16. Some state governments have already moved to create incentive systems for one or more of these policy fronts.

But more needs to be said about the needs of out-of-school young people, especially those who are above the legal age for going to high school. Here we enter the realm covered by the JTPA amendments and the job-training community. Job Corps camps, community-based agencies and other organizations all over the country are deeply involved in organizing a wide range of services for young people who have little or no functional literacy, no vocational skills and, as a result of these and other problems, very poor employment prospects.

It is very important that these youngsters be working toward the same qualifications as young people in school. One of the major problems they face now is that, even when they make good progress in the programs in which they are enrolled, they are stigmatized by the very fact that they are graduates of programs designed for poor people. The system of qualifications or certificates described here will benefit no one more than these youngsters because, when they obtain these qualifications, it will not matter *where* they acquired the necessary knowledge and skills. All that will matter is that they have them.

So the school-to-work transition system described here would be of inestimable help to out-of-school youngsters. But, to take advantage of it, they will need (1) a much wider range of supports than many others (ranging from drug abuse programs to housing assistance), (2) the prospect of public placements for the job training component of their program (private employers may be reluctant to take on many of these youngsters, at least initially) and (3) a point of entry into the school-to-work transition system.

## Organizing the local system

Organizing and running an effective school-to-work transition system will require the active involvement of many different sectors of the local community, many of which have never worked together before. So the question arises: Who should be responsible for organizing and delivering all the services required, and what should the rules of the game be that determine how funds are allocated, who delivers the services, how they are compensated and who is accountable to whom for what in this system?

*Imagine Jamie, a young person who is about to receive her Certificate of Initial Mastery and thinks she might be interested in pursuing a school-to-work transition program. She goes down to the local shopping mall in which she finds a neighborhood office of the Fairmont County Careers Consortium. It looks a lot like the personnel office of Xerox Corp., where her dad works — neat, clean, new carpets, people who are really friendly and helpful — a bit of class. She is introduced to Eduardo, a case worker, who explains that this careers center does no education or training itself, but will do*

*everything necessary to help her figure out which careers might be worth pursuing, how to hook up with a program that will help provide entry and how to find the money she will need to complete the program.*

*Via his computer terminal, Eduardo has access to a lot of information about current and expected economic trends and forecasts about which careers are likely to flourish and pay well. Jamie is a little confused by all this, and Eduardo offers to give her a battery of tests that will help her think about what kinds of careers she might like to pursue.*

*When, after thinking about it and consulting with family and friends, Jamie has selected a career line that she would like to pursue, Eduardo helps her put together a program to get there. Jamie has decided on precision manufacturing, an area in which most employers will ask for candidates who have a skills certificate endorsed by the National Skills Standards Board. Eduardo discovers that more than 20 institutions in the metro area offer programs leading to that certificate, among them Rivers High, where Jamie is a student. Among these institutions are other high schools, community colleges, proprietary schools and a couple of firms that originally developed the programs for their own employees and then decided to open their doors to others. In each case, the programs involve at least some college credit and at least some structured on-the-job training at work sites. Most of these programs are offered by partnerships. Because most of the young participants in the school-to-work transition programs want to stay in high school, most of the partnerships consist of a high school, one or more colleges, and one or more firms.*

*It turns out that Eduardo's computer terminal is a big help in sorting through all the possibilities. This is because, under the state's rules, all programs offering school-to-work transition programs are required to compile their performance data in a common format and make it available to the career centers in the state. That means Jamie can compare the programs on the basis of their performance and pick the one that is right for her.*

*In the end, she picks the program in her field that is run by Rivers High, for three reasons: (1) most of the youngsters who enroll in it actually get their skills certificates and get them reasonably quick; (2) the firms that participate in Rivers' program are mostly places where Jamie would like to work after she gets her skills certificate; (3) it is close to her home; and (4) not least important, if she stays at Rivers, she can continue to be in the varsity sports program and be with her friends.*

But Jamie might have been a 19-year-old high school dropout looking for a way to get a Certificate of Initial Mastery, or a 24-year-old with limited literacy skills and a history of drug addiction, or a 20-year-old who just got a Certificate of Initial Mastery through an alternative education program in the community and wants to go for a skills certificate.

In any of these cases, Eduardo would have carefully interviewed his client, and then filled in a single computer-data entry form. That form is very like a universal application for all the forms of financial assistance available from the state and federal governments for education, job training and related services. Eduardo would then press one button and the computer would print out a one-page report showing just how much money is available to meet the needs of that particular young person and whether it is subject to restrictions. With this information in hand, Eduardo would work with the client to craft a program that meets her

needs; arrange, on the spot, for all services and programs needed; and set up a schedule for the client to come back from time to time to see how she is getting on, and, if necessary, correct course. (The computer software to perform all these tasks is available now and is being used in a growing number of cities and states.)

The career center has no investment in any particular supplier of services. Its only clients are the clients coming through the door who need help. It is an honest broker that can steer its clients through the system, and put them in charge of their own destinies.

Some of those clients will only need to be put in touch with a high school school-to-work transition director, and that person will take it from there. Others will present much more complicated problems and require a custom-assembled program designed to take advantage of a multitude of community resources. Some young people will have a program designed around their high school, others around the local Job Corps Camp. Some will need drug rehabilitation before they can profit from the regular program and others will not. For some youngsters, Eduardo will have to be in frequent touch with probation and social services officers, but not for others.

For all of this to work smoothly, the local career centers will have to be governed by a powerful board of individuals very committed to building an effective system for the whole community. It is crucial that the members include the CEOs of some of the most highly regarded employers in the area and that some of these people take leadership positions on the board. But it is also important that organized labor be represented on this board as well as key representatives of the youth advocate community, higher education, the schools and the training community.

Without key employers in the lead, it will not work. Unless employers provide the on-the-job training slots and training materials, help to develop the curriculum, find the job mentors, come up with the wages, perform their role in examining students against the standards and organize the job market for young people, the whole idea will fail and become another form of career education without careers.

Eduardo and his counterparts will not be in a position to explain to the various providers how the new system works and to persuade the education and training providers to seek new partners and to build new programs for young people. It will take senior leaders in the community to organize it for this purpose. It will take the same group to monitor the program's progress and to respond to any glaring gaps by, for instance, calling the CEOs of 70 small- and medium-sized firms and urging them, one-on-one, to get on board. It will take those same senior leaders to call up the head of the county Department of Social Services or the head of the juvenile justice system and urge them to integrate their data systems with those of the career center and then (and much more importantly) forge the links among the front-line staff members of these agencies that will make it possible for young people on the bottom to escape the cycle of dependency and poverty in which they are now enmeshed. In short, the career centers must be designed to meet the goals of the consensus model school-to-work transition system, but then they must also be designed to meet the needs of dislocated workers, displaced

homemakers, those who have never held a steady job, and everyone else in the labor market who needs the kind of help that such a center could provide. The center described herein would have within its scope the trained staff, support services and technologically based information systems to do just that, and do it well. Because such a center would be established to meet everyone's needs, no one would be stigmatized by taking advantage of its services, and everyone would rally around it in its times of need. It would be a powerful community institution, not another marginal service for the young or the poor.

And that, of course, is the danger. School-to-work transition easily could become another marginal program added to all the others, a vaguely defined collection of activities, each of which serves only a handful of students, mostly perceived as alternative programs for youngsters who do not fit in elsewhere.

The most potent inoculation against that outcome is an overall structure of state policy built along the lines described earlier and strong local leadership spearheaded by leading employers, but involving lots of others.

One last point about local organization. As mentioned above, one of the most serious problems in getting employers involved is the difficulty that small- and medium-sized firms face in doing the necessary paperwork, planning, supervision, curriculum development and training, and in providing the diversity of training experiences that will be required for a sufficiently diverse exposure to a whole industry. The Australians have addressed this problem by offering assistance to local employer groups in the formation of group training corporations. Under this system, the primary relationship between the young person and the firm becomes instead a relationship between the young person and the group training corporation. The corporation becomes responsible for finding the partner to provide the classroom work; for organizing a series of placements among employers that will, taken as whole, provide the overall exposure to the field that is wanted without requiring any single employers to provide those experiences; for handling all the paperwork involved; for taking out whatever insurance, including worker's compensation, that might be required; for providing the coordination and counseling for the students that is needed; and so on. The whole group of employers at the local level owns the group training corporation, sets its policies and hires its staff. It also pays its expenses, with significant subsidies from the government. The result in Australia is that many small- and medium-sized employers that could not or would not have participated at all are now enthusiastic participants. From the standpoint of the firms, they have avoided what they see as the heavy hand of government, because all of this is voluntary and they have done it themselves, but government has achieved its aims at a very low management cost, having provided a subsidy without which nothing would have happened.

In the system described, the local career centers could be organized as a corporation and play all the functions of an Australian-style group training corporation, or the group training corporations could be formed separately, but in formal alliance with the career centers. In any case, it is very important for the system to have some feature that serves this purpose.

## AT THE END OF THE RAINBOW

Imagine what could be gained if this plan were implemented.

In this scheme of things, high school would no longer be simply a holding ground for millions of students. There would be strong incentives for students to work hard in school to reach the standards embodied in the Certificate of Initial Mastery and the skills certificates, because most colleges and employers would require the Certificate and most employers offering entry-level jobs leading to good careers would require students to have the skills certificates. Students who now leave school with low literacy skills and few vocational skills would leave instead with the high literacy and the skills they need to pursue careers that will pay well and that they will find personally rewarding.

At the same time, the plan would greatly increase the supply of young people who can meet the demands of the high performance workplace and provide employers with the means to compete effectively and pay high wages to workers.

The plan finds a balance between individuals' needs for the broad preparation that is the basis for mobility in a dynamic economy, and firms' needs for people who are qualified to do the work at hand in high performance work organizations.

The design creates a framework of both collaboration and competition among institutions designed to assure that the most effective and responsive array of services is made available at the lowest possible cost.

Because this plan would explicitly prepare students for the demands of high performance workplaces, it would respond to the fear of many educators that they would be asked to prepare their students once again for workplaces in which they were not expected to think or behave as autonomous individuals. (But this is not likely to make much difference in educators' views unless employers and unions find a way to get teachers into high performance work organizations so they can get a visceral feeling for the difference between these work organizations and the old-style work organizations with which they are familiar.)

Perhaps the greatest fear of many educators is that the move toward school-to-work transition programs is just another way to track students. The configuration proposed here, however, is the opposite of tracking. When students get their Certificate of Initial Mastery, they will become the masters of their own fates. They can choose what they want to do with their futures, not have it chosen for them. The school-to-work transition system described here is not an alternative to college but rather another way of going to college. It does not close off options but rather opens them up. It would, in fact, abolish the tracking system that has served to disenfranchise disadvantaged American youth for generations. In its place would be alternative pathways to college and good jobs for millions to whom these outcomes have been effectively barred.

New policies will not by themselves raise teachers' expectations for students who have not been performing at high levels in the past. But, based on accumulating evidence from the apprenticeship pilot projects, teachers of academic subjects change their minds quickly about what they expect from

their students when they see older adolescents who have never read before sounding out the words of a training manual so they can fix a piece of broken equipment. The motivating effect of this approach to education, long familiar to vocational educators, is often a revelation for teachers of non-vocational subjects, and they often experience something like a conversion when they first see its power to engage young people they had never before been able to reach.

The plan does not set up any orthodoxy with respect to how the professional and technical programs for our youngsters are designed. Tech-prep programs already underway would fit into the system advocated here if they include on-the-job structured training components and an employer-set qualification toward which the students are working. There would be room here, too, for cooperative education programs, apprenticeship programs and many other approaches that are full of promise.

The system proposed here not only does not exclude young people for whom the schools do not now work; it specifically includes them. It emphasizes dropout prevention and recovery, provides access for out-of-school youth, deals directly with the problem of low expectations for low-income and minority youth, and has a prominent place for the services provided by community-based agencies and the job training community. More than this, it is based on a system of performance standards which, when met, places all of those who have met them on the same platform, independent of background or the particular setting in which they were educated or trained. The day of programs for the disadvantaged that stigmatize those who succeed in them will be over.

If this proposal is implemented as designed, the need for our institutions of higher education to provide remedial education would end, because our higher education institutions could, if they wished, restrict admissions to students who had received a Certificate of Initial Mastery, and all such students would be capable by definition of doing college-level work. Colleges that wanted to do so could provide programs leading to the Certificate for out-of-school youth, but those programs, though operated by colleges, would not constitute college-level work.

The proposal made here tilts heavily toward a design for school-to-work transition that would prepare young people not for any jobs, but rather for the good jobs that will be provided by employers using high performance work organizations. To do otherwise would be to reinforce an economy whose front-line workers are not expected to think. If perpetuated, this kind of economy is certain to produce progressively lower paying jobs for everyone, to the extent that it provides jobs at all. To reach that outcome, it will be necessary to place the firms using high performance work organizations in the driver's seat when it comes to setting skills standards. Fortunately, these are the firms that are experiencing the most severe shortages of skilled front-line workers and that typically have the most sophisticated human resources development organizations. The larger organizations in this category are the ones most likely to be insisting that their suppliers reach their own quality standards, including skills and training standards. These proposals for the local governance and organization of the career centers and for the organization of group training corporations are intended to make participation in the design and operation of the school-to-work

transition system attractive to the top managers of firms using high performance work organization and to make it possible for small and large firms to participate.

Organized labor will be heavily represented on the National Skills Standards Board. But its participation will also be essential at the local level as the design is implemented. Organizing the school-to-work transition system at the local level around the career centers would provide a table at which the unions could and should sit, assuming that some sort of local governance board of the kind described here is established. Union members have children, like anyone else, and if they see their sons' and daughters' prospects changed by their participation in well-constructed school-to-work transition programs, they, too, will likely support these programs.

Finally, the proposal to vest the functions of job counseling and referral in a system of local career centers, and to use a universal system of qualifications to drive the school-to-work transition system, would assure that that system is an integral part of the larger system for skills acquisition and employment, not a separate program with yet another separate set of governance requirements, reporting requirements, staff operations and funding arrangements.

## THE SCHOOL-TO-WORK OPPORTUNITIES ACT

As this is written, the School-to-Work Opportunities Act has passed both the House and Senate and is headed to conference, presumably to become law. The law provides a framework sufficiently flexible to permit everything proposed in this paper to be done. Its authors and principal advocates have repeatedly said that it is their intention to help the states develop a new system, not to add yet another program to the heap already in place. But, as noted above, the temptation for state and local policymakers will be to build school-to-work transition programs, rather than a new system, changing as little of the basic existing structure for education and skill training as possible. This paper has tried to describe how a true system might work, a system that embraces the schools, the employer community and organized labor, higher education and the job training community, all working in concert. This new system focuses on the transition from school to work, but the same system would redefine the relationship between school and college and would embrace the needs not just of young people, but also of dislocated workers, illiterate adults and many others who badly need a labor market system that functions smoothly for everyone, not just the young.

The goals worth seeking here can be achieved only through fundamental systemic change. The School-to-Work Opportunities Act provides the occasion; it is up to the states and localities to provide the leadership.

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## Workforce Skills Program Publications and Videos

*America's Choice: high skills or low wages!*, The Commission on the Skills of the American Workforce, National Center on Education and the Economy (1990)

*The Certificate of Initial Mastery: A Primer*, Workforce Skills Program, National Center on Education and the Economy (Spring 1994)

*States Begin Developing the Certificate of Initial Mastery*, Workforce Skills Program, National Center on Education and the Economy (Spring 1994)

*The International Experience with School Leaving Examinations*, Workforce Skills Program, National Center on Education and the Economy (Spring 1994)

*A World-Class Workforce for a High Performing Economy: Oregon Leads the Way*, Workforce Skills Program, National Center on Education and the Economy (Spring 1994)

*Building a System To Invest in People: States on the Cutting Edge*, Workforce Skills Program, National Center on Education and the Economy (Spring 1994)

"The Business of High Performance," A 10-minute video that defines a high performance work organization and shows examples of companies that have reorganized work to effectively use their highly skilled workforces and, in the process, improved their productivity. Workforce Skills Program, National Center on Education and the Economy (Spring 1994)

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